

# **PHENIX**

## **WEEKLY PLANNING**

6/28/2007

Don Lynch

# 2007 Summer Shutdown Schedule

<u>Item</u>	<u>Start</u>	<u>Complete</u>
RPC Factory set up	5/15	2011?
HBD West repair	4/26	9/14
End of Run 7	6/26	6/26
Flammable Gas Purge	6/26	6/27
Open rolling wall, disassemble and store	6/28	7/6
EOR Party	6/29	6/29
MuID collar removal, MMS move S.	7/9	7/9
Disconnect EC and Move to AH	7/10	7/16
C-A fold scaffolding, remove lift & ladder, disconnect gas sniffers	7/2	7/9
PHENIX techs disconnect water, elect., gas, fibers, RXNP blue cable		
Mike Rau remove lift wiring, disconnect TOF blower	7/10	7/12
Move EC to AH	7/13	7/16

Note: C-A Cooling water improvements are planned for this summer. This may involve interruption of water cooling for most/all of the summer. Please let me know if water cooling is necessary for any subsystem operations this summer.

# 2007 Summer Shutdown Schedule

RPC Engineers coordination visit	7/16	7/26
Reconnect EC for maintenance in AH	7/16	7/23
Move MuID collar to AH	7/16	7/16
Misc. Subsystem Maint./repair/Upgrade	7/16	10/1
Misc. Infrastructure Improvements	7/16	10/1
Install IR floor plates, rolling cart & move manlift to IR	7/17	7/18
Install CM access ladder	7/18	7/18
Remove HBD East	7/19	7/19
Remove MPC South	7/20	7/20
MPC South upgrade/ bench tests	7/23	8/13
Move CM south	7/23	7/23
Remove SouthEast Vertical Lampshade	7/24	7/24

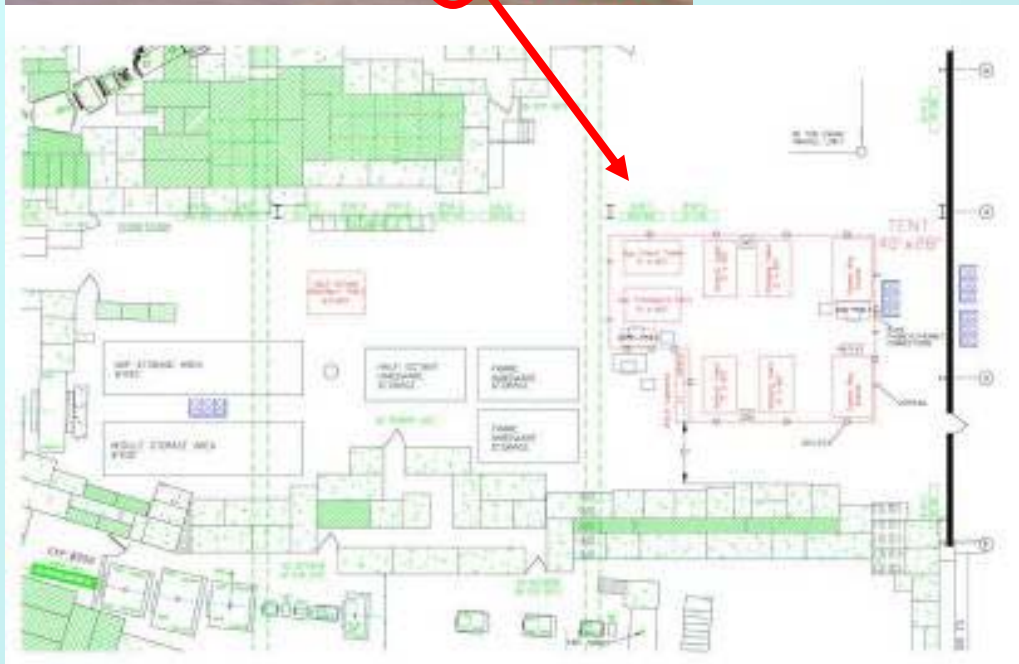
# 2007 Summer Shutdown Schedule (cont'd)

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<u>Item</u>	<u>Start</u>	<u>Complete</u>
Remove MPC North	7/25	7/30
MPC North upgrade/bench tests	7/30	8/6
MuTr Capacitor Decapitation	7/25	8/31
Reinstall MPC North	8/6	8/13
MuTr FEE Prototype (Sta. 2N lwr oct.)	8/6	9/20
Move CM North	8/13	8/13
Reinstall MPC South	8/13	8/20
Repair RXNP Phototube	8/13	8/20
Summer Sunday Tour	8/15	8/19
Install CM Crane	8/20	9/3
C-A arc flash work (no power)	8/23	8/24
HBD West Mechanical/Gas Reinstall	9/17	9/24
HBD EAST Mechanical/Gas Reinstall	9/24	10/1
HBD Electrical Reinstall	9/17	10/8
EC Roll In	10/8	10/10
DC East repair	10/11	10/12
HBD/MPC/Other TBD Commissioning	10/1	10/31
Start of Run 8	11/1	11/1

# RPC Factory

Technical Support 2007



All Equipment is at 912.

Paul finished one-line electrical drawings.

Tent assembly P.O. in place, assemble next week?

# RPC Factory Issues

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## A. Factory Set Up:

### 1. PHENIX tech support:

Gas: John T.

Elect: Frank T.

Mech: Kenny J.

### 2. Contractor Assembly

### 3. One-line elect done and approved. Mike Rau ordered elect supplies... will install elect. As soon as tent is up.

### 4. HVAC plan -> use 2 9000 BTU standalone AC's (w/heaters) 20-80% rel humid OK, 3-4 HEPA filters

### 5. Gas distribution design TBD

## C. Safety Issues:

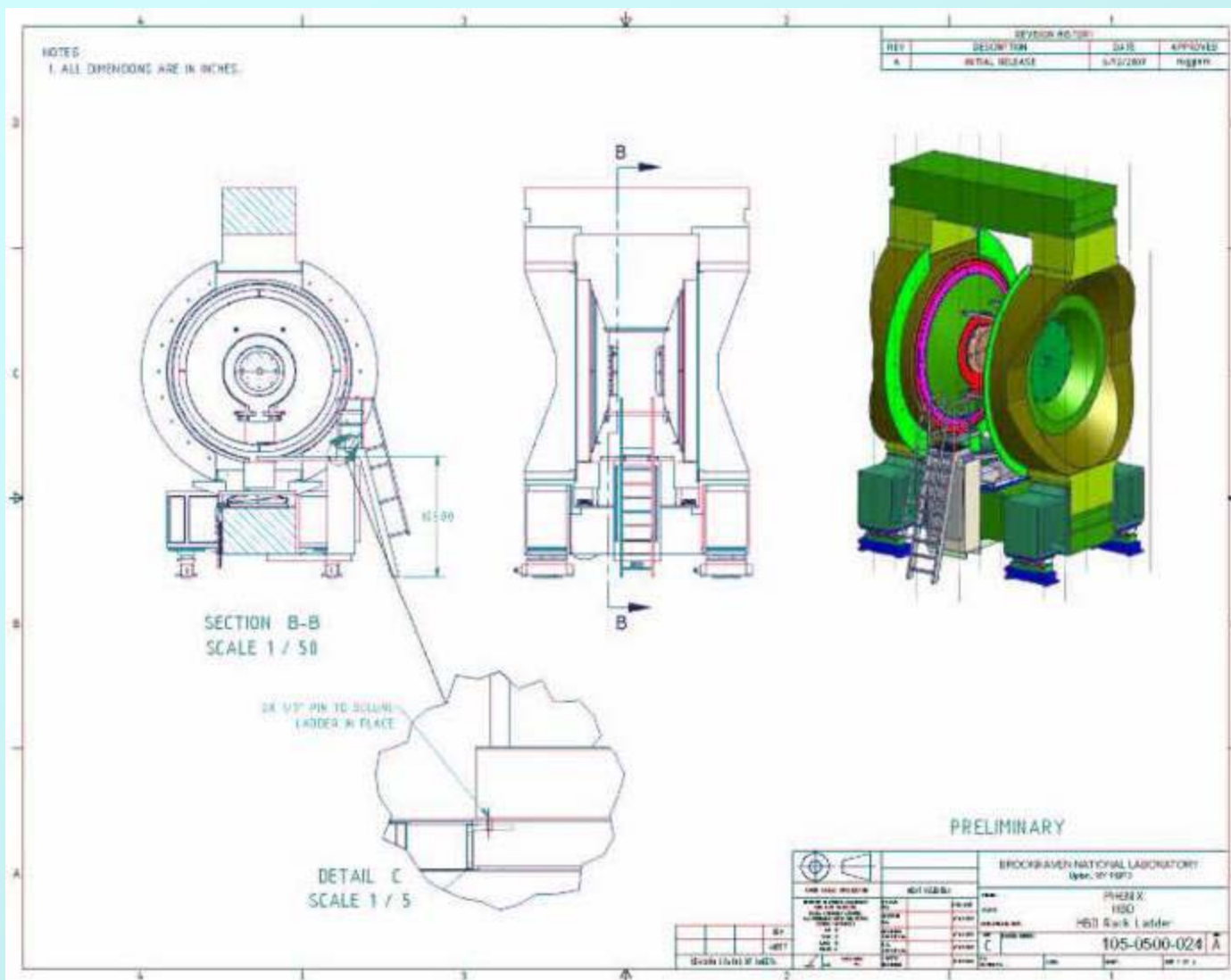
Per Yousef's Minutes from review

- Tent does have a man door
- Paul to do one-line elec schm.
- Calib./testing of SF6 monitors
- Gas system schematic
- Gas system construction
- Fire protection
- Gas environmental impact
- Electronics/equipment review
- Factory users safety manual

## D. Factory Equipment

- Design & Fabrication (cosmic ray test stand)
- Layout & installation shelves & cranes

# CM Ladder/Stair



- PO written waiting approval
- To be used during shutdown (EC out) only.
- Alternate custom ladder needed for CM access during run
- Need EC out before full space envelope info can be determined
- Design to be reviewed by CA Safety

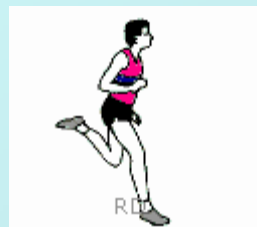


## Latest Counts

Efforts continue

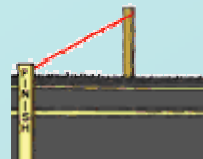


Paul 21 more



Don 8 more

6 Procedures  
reviewed/revised  
complete pending  
approval sign-off



Rob 7 more

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Ready for action.  
Expect RPC engineers  
week of July 16-20



Technical Support + NOO7

# Other Work



- Empty (except clean metal waste) and discard old container
- VTX prototype
- NCC prototype & electronics
- Neutron shielding test
  - 2 4' x 4' x 2" sheets of borated polyethylene suspended from above (IR side) centered in last MuID gap with MuID panel



# MuTR FEE Upgrade Summer Test Plan

RIKEN/RBRC

Itaru Nakagawa

Liaison x5984

Itaru@bnl.gov

Material will be installed temporary and tested.

After test, they will be removed.

Schedule is not finalized yet. Need your input.

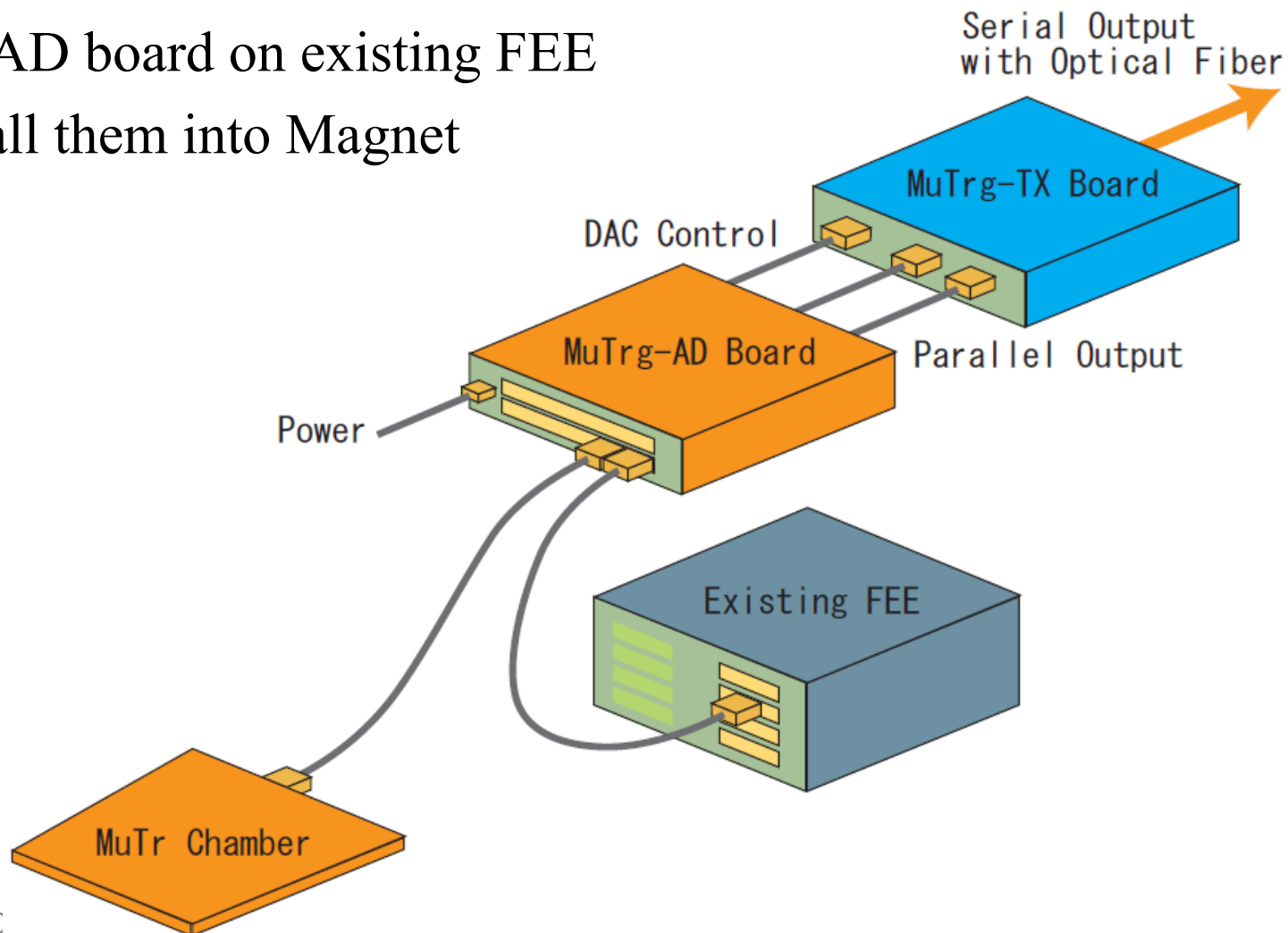
# MuTrg-AD & TX Board Install

Signal split on MuTrg-AD Board backplane

For St.2,

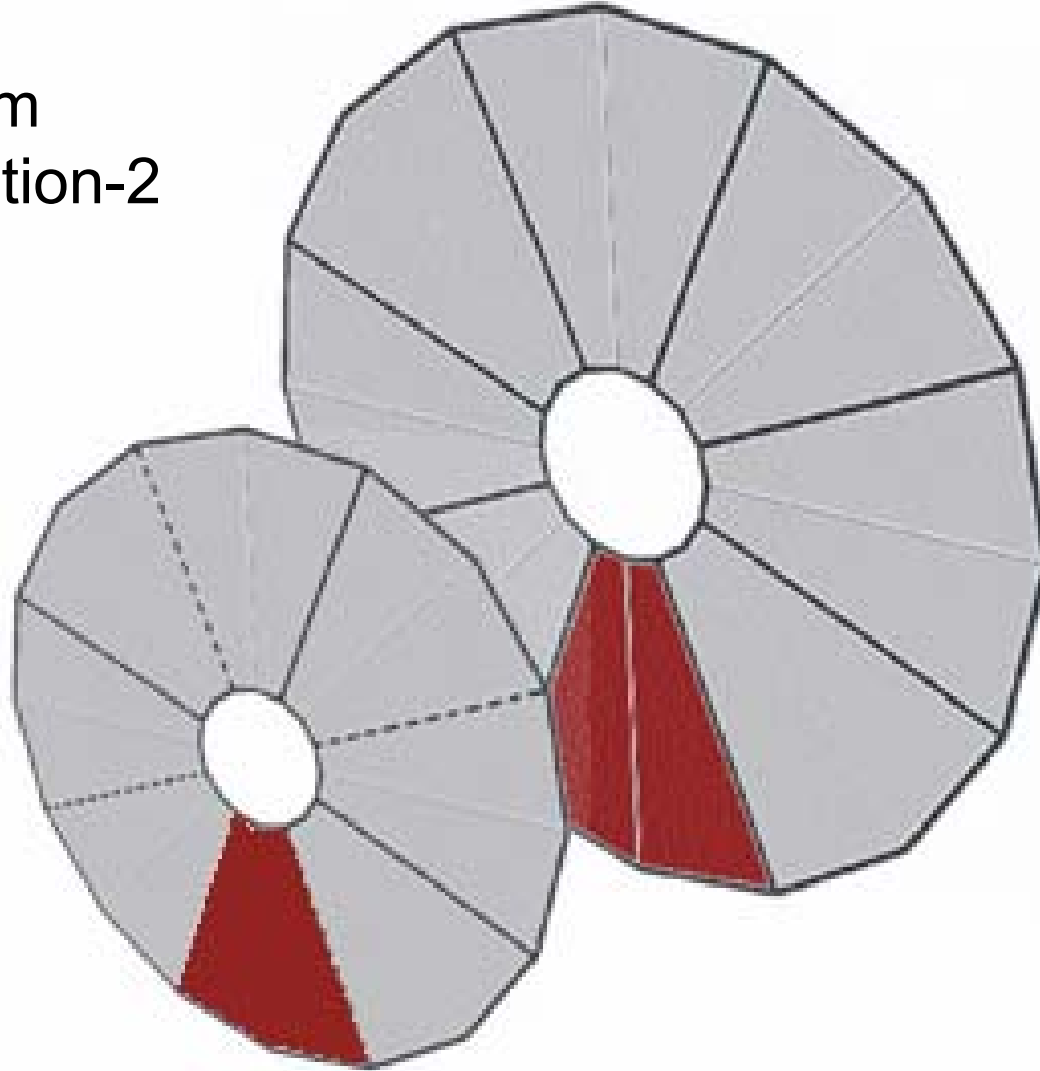
Put AD board on existing FEE

Install them into Magnet



# Where is it going?

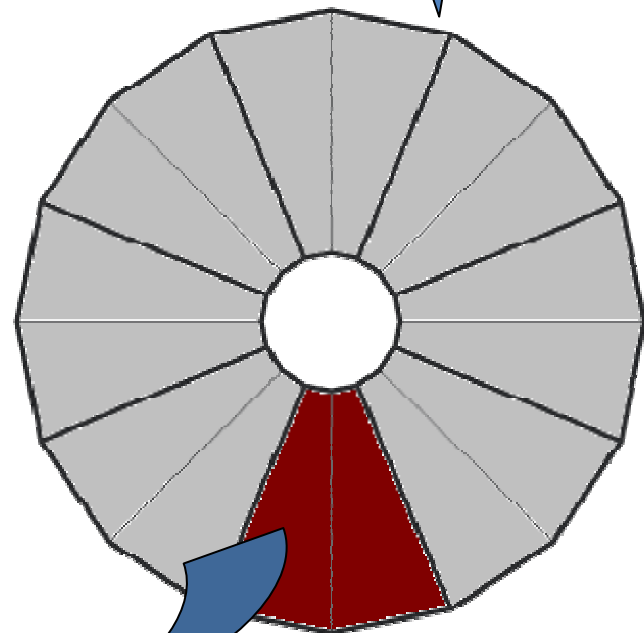
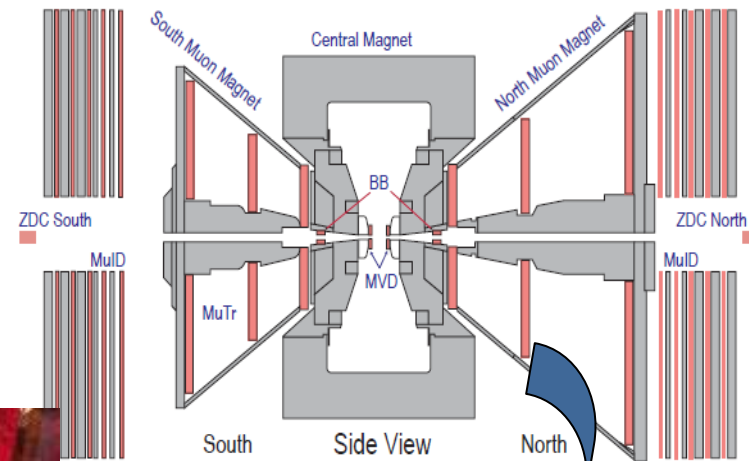
North Muon Arm  
Station-1 & Station-2  
Octant-7



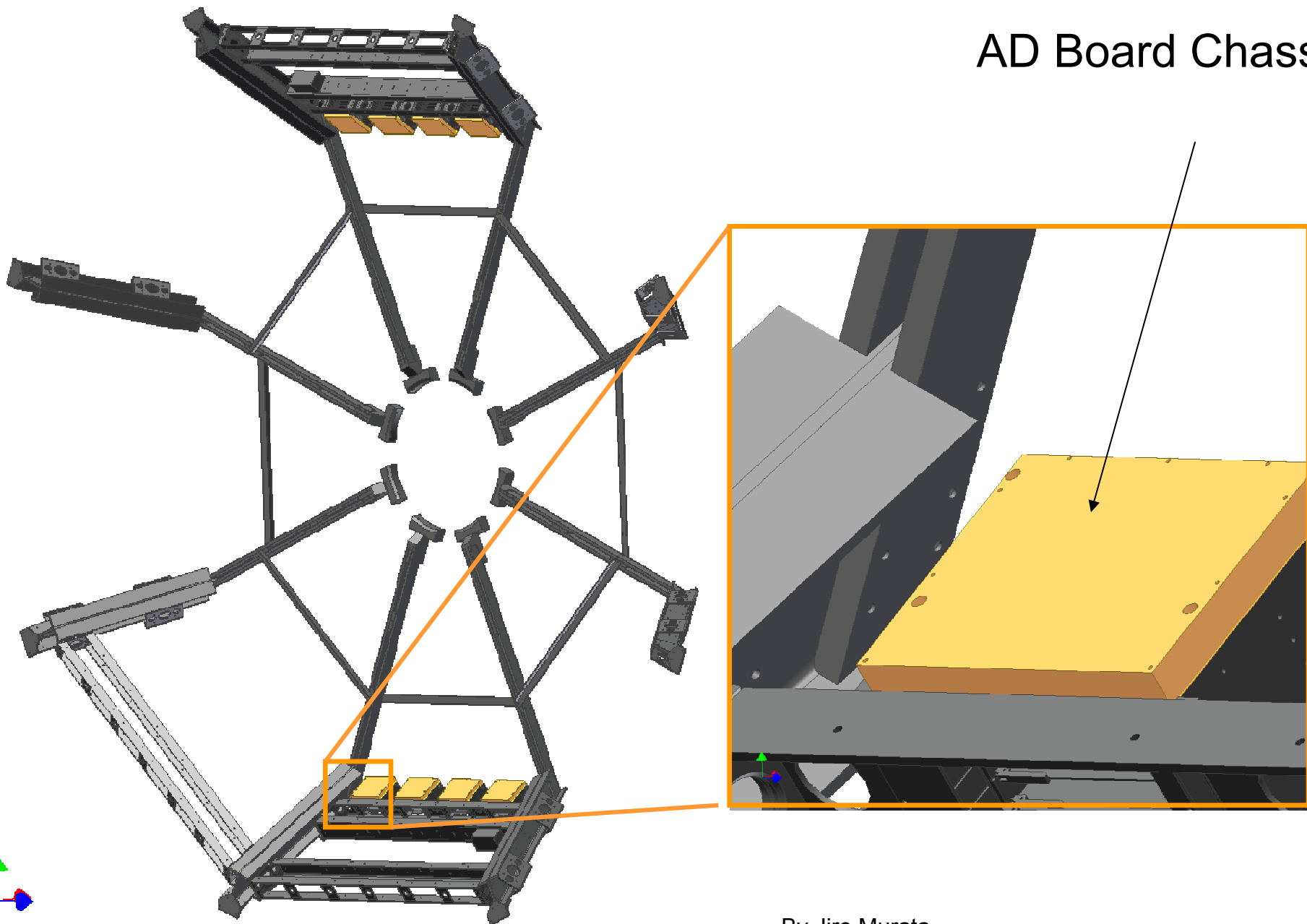


## Station-2

- 5 AD board Chassises
- 3 TX board Chassises



# AD Board Chassis



By Jiro Murata



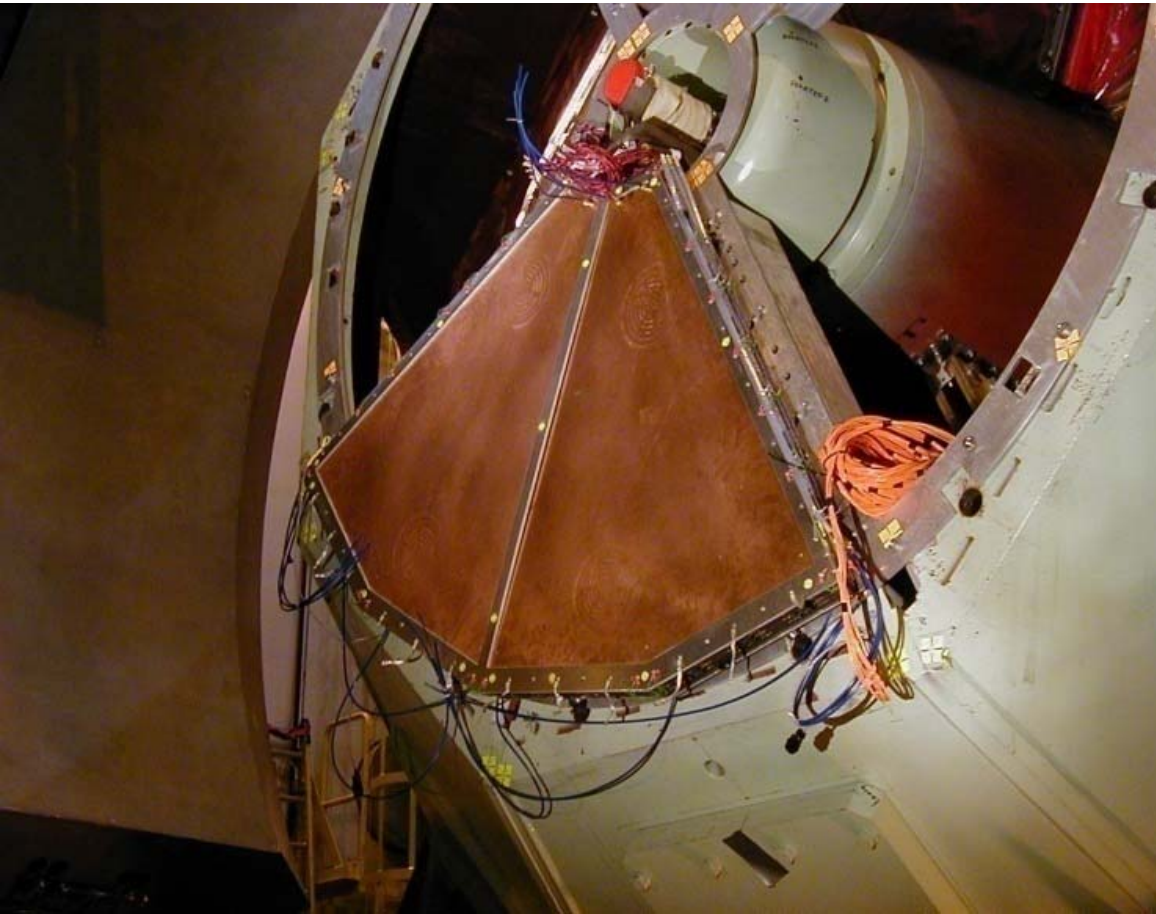
## Station-2 TX Board Chassises



Attach TX-Board  
Chassises

New Frame  
Unistrat + C-cramp on existing frame

# Station-1



3 AD-Board Chassises  
2 TX-Board Chassises

Need to be accessible  
to St-1 during test period

Need Man Lift

No plan how to mount yet

# Hardware Requirements

- MuID North + MuTR North (No Magnetic-field at all)
- Gas :
  - Phase-I : 8/14 - 8/23
    - MuID : CO<sub>2</sub>
    - MuTR: Ar + CO<sub>2</sub>
  - Phase-II: 8/23 - 9/10
    - MuID : CO<sub>2</sub> + C<sub>4</sub>H<sub>10</sub> (recirculation mode)
    - MuTR: CF<sub>4</sub> + Ar + CO<sub>2</sub> (recirculation mode)
- Dry N<sub>2</sub>: not much flow
  - Manifold + 1/4 inch tubes
- Cooling Water : not much flow
  - Manifold + 1/4 inch tubes
- Power :
  - Install 8 AD & 8 TX boards
    - $102\text{W} = 8 * 9.4\text{W}(\text{AD}) + 8 * 3.4\text{W}(\text{TX})$
  - Power from MuTr LV module
    - unused 12ch ( $7.5\text{V} * 4\text{A} = 30\text{W}/\text{ch}$ )
    - LV cable \* 12 pairs. LV module->Octant.7 (st-1,st-2).

# DAQ + Disk Space Requirement

- MuID North + MuTR North.
- MuID-North 1D-Single Trigger
- New FEE signals → MuID North (South) ROC → DCM
- DAQ
- Disk space : 3~4 TB total

# Schedule

- Aug.6 : Preparation for Installation
- Aug.13 : Start Installation
- Aug.16 : Debugging
- Aug.23 : Production data taking.
- Sept.10~20 : Finish data taking
- Sept.10~20 : Start Uninstall



Phase-I

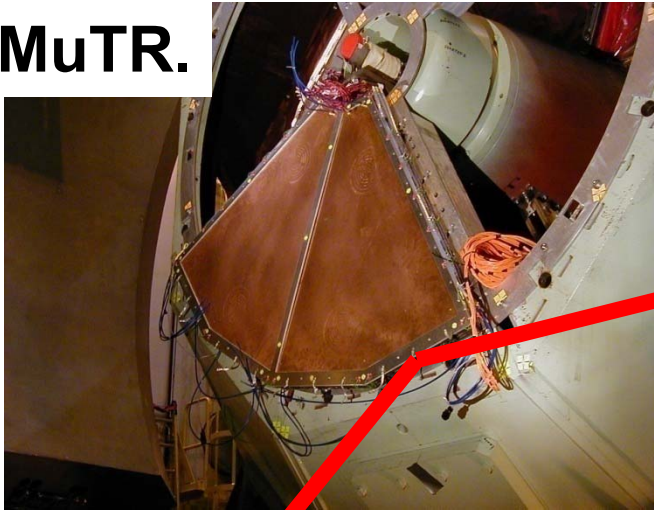


Phase-II

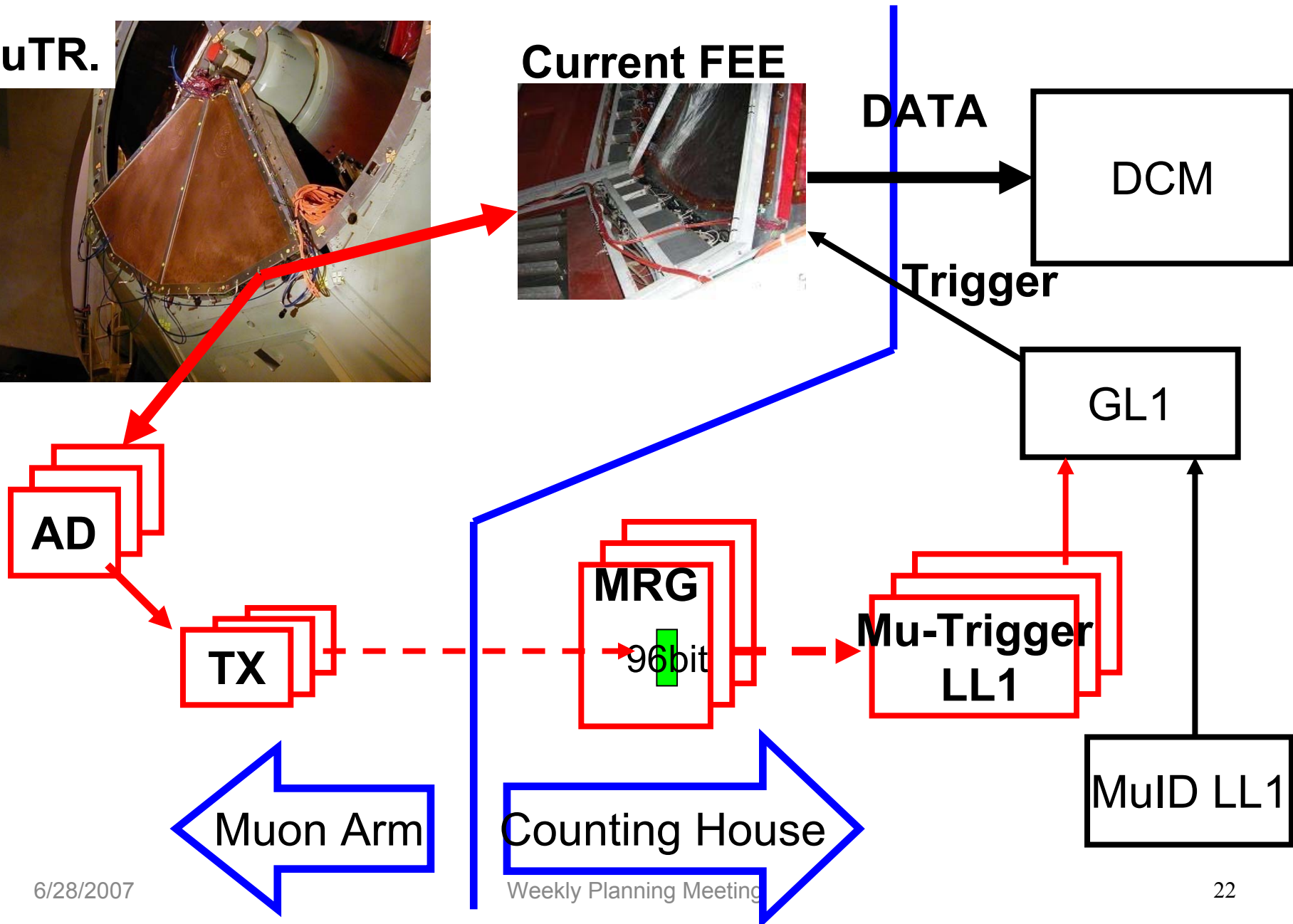
Backup Slides

# System overview

**MuTR.**



**Current FEE**

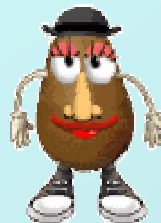
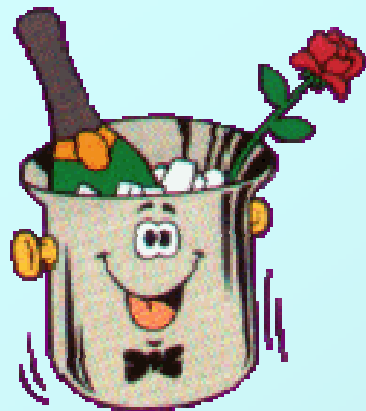




2007	HBD Repairs, DC (minor) repairs), MPC N&S upgrade, MuTr FEE upgrade prototype, infrastructure upgrades & repairs, misc. subsystem work
2008	MuTr FEE upgrades 1 octant 1&2 S, Cu absorber test, RPC3 S, infrastructure upgrades & repairs, misc. subsystem work
2009	Scaffolding in MMS and MMN, MuTr FEE N&S stn. 2 & 3, MuTr N&S stn. 2 & 3 repairs, RPC2 S&N, RPC3 N, Cu absorbers, infrastructure upgrades & repairs, misc. subsystem work
2010	Remove HBD & RXNP, remove beampipe, DC West upgrade, VTX barrel, RPC1 N&S, MuTr FEE stn. 1 N&S, MuTr stn. 1 N&S repairs, infrastructure upgrades & repairs, misc. subsystem work
2011	NCC S, FVTX, infrastructure upgrades & repairs, misc. subsystem work
2012	NCC N, upgrades contingency & wishlist, infrastructure upgrades & repairs, misc. subsystem work

*\* Years refer to the shutdown year and follow the run with the similar number (i.e. work in 2007 is to be done in the shutdown that follows run 7, and so on)*

# End of Run Party



TECHNICAL SUPPORT 2007

6/28/2007

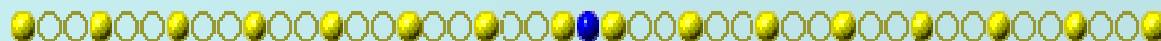
Weekly Planning Meeting

# Where To Find PHENIX Technical Info

*Those of You taking vacation next week: Enjoy!!!*



Links for the weekly planning meeting slides, long term planning, pictures, videos and other technical info can be found on the web site:



[http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL\\_SSint-page.htm](http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm)